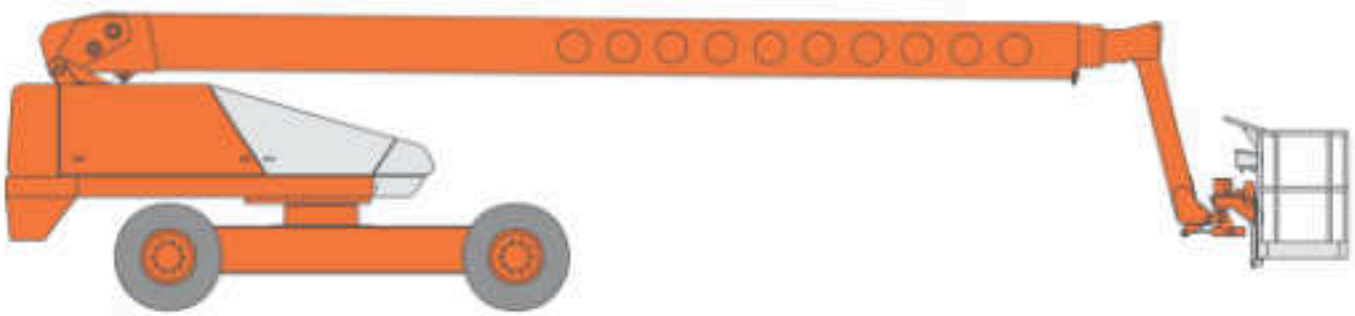
Operator's Manual



TB100J

Snorkel

P/N 0112478
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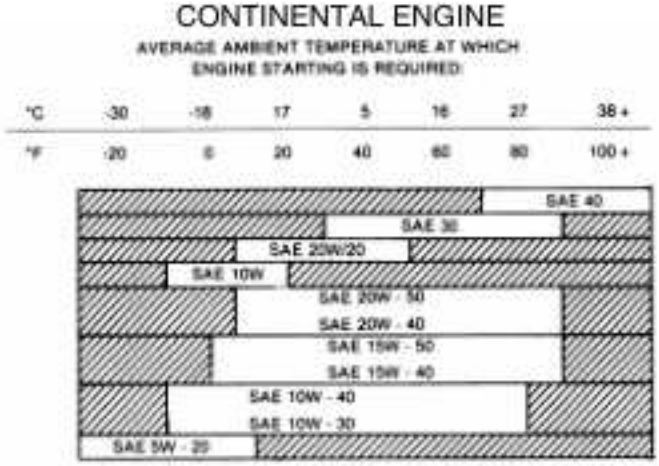
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■ ENGINE DATA

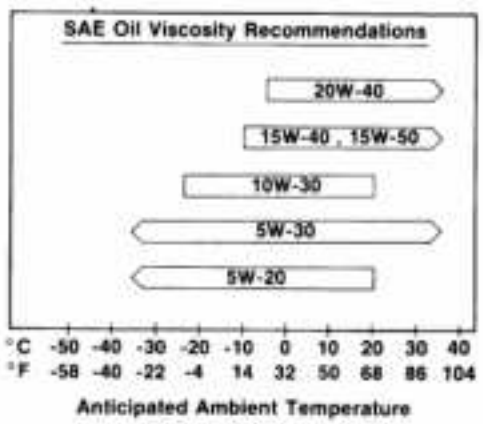
ENGINE MAKE	CONTINENTAL	CONTINENTAL	CUMMINS
MODEL	TM27		4B3.9
FUEL	gasoline	LPG	diesel
FUEL GRADE	unleaded 85 octane (motor method)	HD5 Gas Processors Association Standard 2140. Category: special duty propane.	ASTM No. 2 D Cetane # > 40 (For operating temp. below 32°F / 0°C use "winterized" No. 2 D.)
CYLINDERS	4		
COOLANT	50% water + 50% ethylene glycol		
POWER	71.5 hp @ 3000 rpm (53.3 kW)	64.4 hp @ 3000 rpm (48.0 kW)	76 hp @ 2500 rpm (56.7 kW)
OPERATING TEMPERATURE	180°F - 202°F (81°C - 94°C)		141°F - 211°F (60°C - 100°C)
OIL SUMP CAPACITY	6 qt USA (5.7 liters)		10 qt USA (9.5 liters)
OIL FILTER CAPACITY	1 qt USA (0.95 liters)		
OIL GRADE	API: SE, SF, SE/CD, SF/CD		API: CE/SF, CD/SF
OIL WEIGHT	see chart below		see chart below
RUNNING TIME (one tank of fuel)	A full tank of gasoline, or diesel, will last an entire eight hour shift, under normal working conditions. It normally takes two tanks of LPG per eight hour shift.		

■ ENGINE OIL CHARTS

CONTINENTAL ENGINE

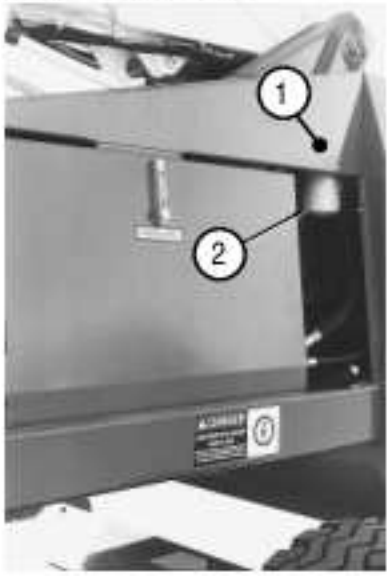


CUMMINS ENGINE



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■ HYDRAULIC OIL FILTER



The hydraulic-oil filter gauge (1) is located above the hydraulic-oil filter (2). The gauge measures pressure into the filter. As the filter clogs, the pressure goes up.

The hydraulic-oil filter gauge should only be read by qualified trained maintenance personnel. An accurate reading requires very special conditions and should not be attempted by operators.

■ ENGINE OIL

CONTINENTAL

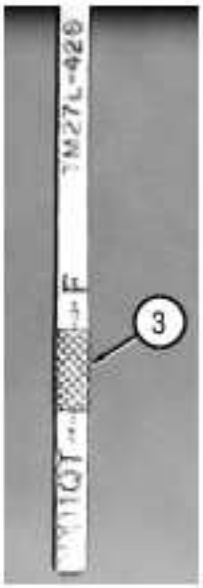


CUMMINS



Engine oil level is measured with a dipstick (1) (2). Oil sump and oil filter capacities given in the "SPECIFICATIONS" chapter are approximate. True values may vary from machine to machine due to slight variations or modifications during production. The oil dipstick is the only way to accurately gauge if the engine oil level is correct.

CONTINENTAL



CUMMINS



Engine oil level should always be in the cross-hatched area (3) (4) of the dipstick — never above or below it. Check the oil level after the engine has been turned off a few minutes so that oil can run down out of the engine into the sump.

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■ PLATFORM-CONTROL BOX

Controls for operating the TB100J from the platform are located on the platform-control box, with the exception of the yellow foot switch which is on the platform floor.

NOTE: The number of each control below corresponds to the control's call-out on the next page.

1. **EMERGENCY STOP**: Press the large red button down at any time, under any conditions, and the entire machine stops — the engine turns off and nothing moves. This switch must be pulled to its up (or out) position if the TB100J is to be controlled from the platform.

2. **EMERGENCY POWER OPERATION**: If the engine stops and cannot be restarted, hold the switch toward you and a small, battery-powered hydraulic-pump comes on to supply power for the machine. Boom movements will be slow and have long lag times under EMERGENCY POWER.

3. **ENGINE THROTTLE**: Leave this switch set on LO unless you want to *drive* at maximum speed (see DRIVE RANGE below).

4. **PLATFORM ROTATION**: CW rotates the platform clockwise (as seen from above) relative to the end of the jib-boom. CCW rotates the platform counterclockwise.

5. **PLATFORM LEVEL**: UP rotates the platform up relative to the end of the jib-boom. DN (down) rotates the platform down.

6. **DRIVE RANGE**: This switch, together with the position of the booms, determines how fast the TB100J can travel along the ground. See the DRIVE RANGE Table below for settings and maximum speeds.

Switching from LO to HI changes the driving conditions from low speed and high torque to the wheels to high speed and low torque to the wheels.

CAUTION

Prolonged driving in HI (3 mph, 4.8 km/hr) heats the hydraulic oil. Periodically check the thermometer at the hydraulic-oil tank sight-glass. Do not let the oil exceed 200°F (93°C). Stop the engine and let the oil cool if necessary.

DRIVE RANGE Table

MAX. SPEED	**DRIVE RANGE**	boom position
3.0 mph (4.8 km/hr)	HI	stowed
0.75 mph (1.2 km/hr)	LO	stowed
0.75 mph (1.2 km/hr)	--	extended but below mid-elevation
creep	--	above mid-elevation

NOTE: ENGINE THROTTLE, at the platform-control box, must be set to HI for MAX. SPEED.

7. **MAIN BOOM EXTEND/RETRACT**: EXTEND extends the booms. RETRACT retracts the booms. Speed of movement is proportional to how far you push the controller.

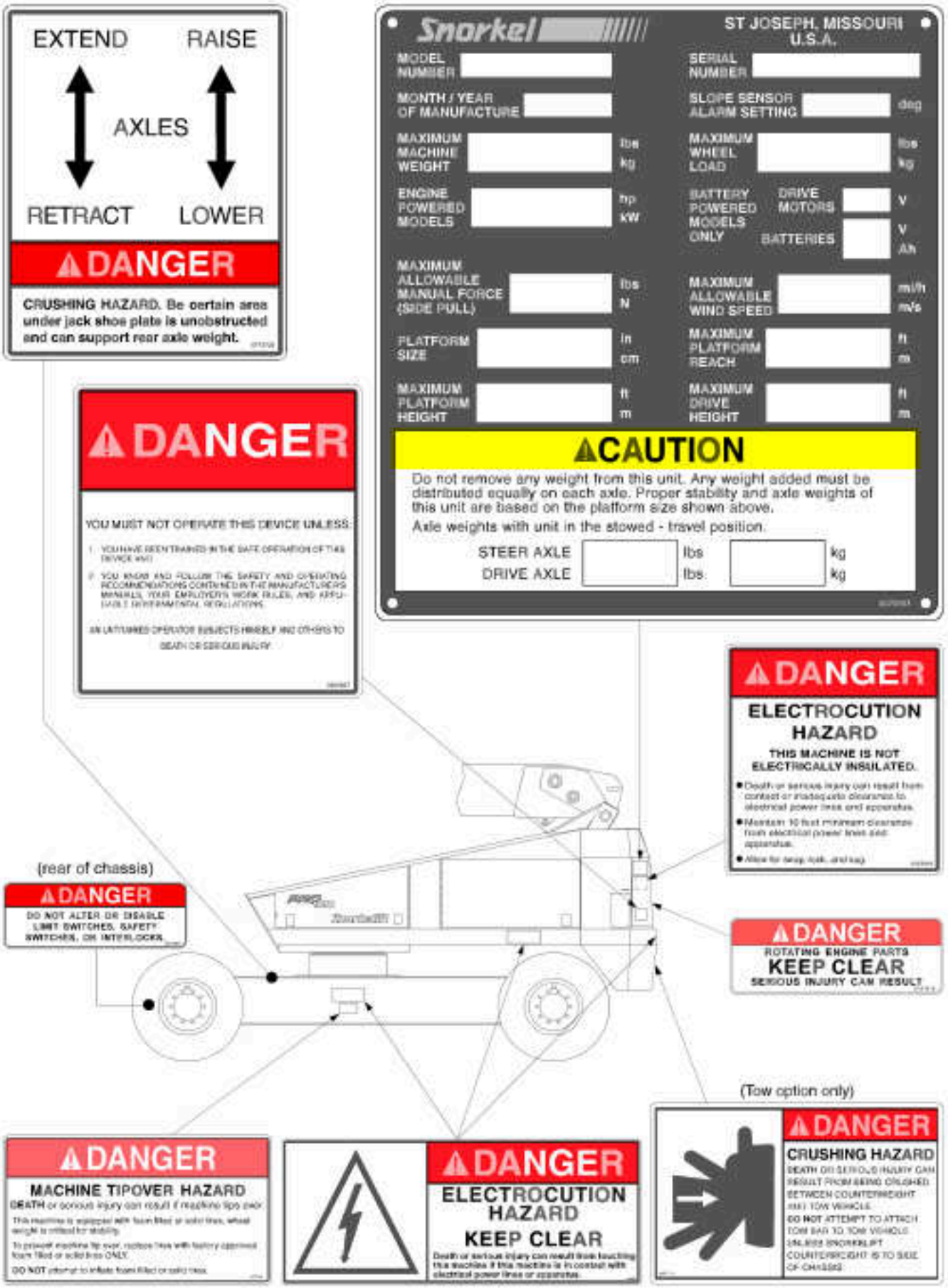
8. **JIB BOOM LIFT**: UP raises the jib-boom relative to end of the tip-boom. DN (down) lowers the jib-boom. Speed of movement is proportional to how far you push the controller.

9. **ANTI-RESTART MASTER SWITCH**: This switch works like an automobile ignition switch. Hold it at START until the engine starts then release it to ON. If the engine dies in ON, the key must be turned to OFF before it will go back to START. Turn the switch to OFF if the platform is to stay in a particular position for a long time. This will turn the engine off and save fuel.

10. **HORN**: See "SAFETY DEVICES" chapter.

11. Foot Switch: You must step down on the foot switch, and hold it down, any time you use any platform control that causes the platform to move. Stepping on the foot switch increases the engine speed and activates other switches/controls in preparation to do work. (The foot switch is to the platform what the GROUND OPERATION switch is to the ground-control box.)

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